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10/090,899	03/05/2002	Faraydon O. Karim	01-LJ-014	6516

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Lisa K. Jorgenson, Esq.
STMicroelectronics, Inc.
1310 Electronics Drive
Carrollton, TX 75006

EXAMINER

FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Claim Objections

1. **Claims 17-20** are objected to because of the following informalities: claim 17 is missing further elements after the conjunction “and” in the last line. Claims 18-20 are objected to for depending on claim 17. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 2, 3, 4, and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,848,006 B1 to *Hermann* in view of U.S. Patent No. 6,865,149 B1 to *Kalman et al.* (“*Kalman*”).

As such to **claim 1**, *Hermann* discloses e.g., in figure 1 switching circuits A-E capable of transferring data packets with each other. *Hermann* also teaches sequential data links bidirectionally coupling said switching circuits in sequence to thereby form a ring configuration as the BLSR ring 11,13, see e.g., column 3, lines 45-67. Further taught are four crossing rings as part of the mesh network. In particular, it is understood that connection 2 (i.e., the mesh connection) is by way of example, and that other nodes may be equally directly connected, see e.g., column 4, lines 17-21.

Hermann is silent or deficient to the further limitation 8 switching circuits and 8 sequential data links thus teaching an octagonal ring configuration. In particular, the example illustrated in figure 1 is for a five node network.

Kalman teaches the further recited limitation above at e.g., figure 2a.

The proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Hermann* by clarifying that it would have been obvious to use 8 nodes instead of 5 nodes.

As such, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the above limitation. In particular, the motivation for modifying the reference or to combine the reference teachings would be to communicate with more nodes on the ringed network. In particular, *Kalman* cures the above-cited deficiency by illustrating that more than five nodes are used on a ringed network. Second, there would be a reasonable expectation of success since both references teach BLSR, see e.g., column 2, lines 17-26.

As to **claim 2**, see e.g., figure 1a of *Hermann* where the hop distance from node a to node d is two hops based on the meshed link 2.

As to **claim 3**, see e.g., figure 2a of *Kalman* which shows the nodes labeled from nodes 0-7. Examiner notes the same motivation applies as the rejection for the based claim.

As to **claim 4**, each node is capable of processing the data packets by at least determining whether the packet traverses the working or protecting links.

As to **claim 7**, see similar rejection to claim 2.

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4. **Claims 9-12, and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,848,006 B1 to *Hermann* in view of U.S. Patent No. 6,865,149 B1 to *Kalman et al.* ("*Kalman*"), U.S. Patent No. 6,111,859 to *Godfrey et al.* ("*Godfrey*").

As to **claim 9**, see similar rejection to claim 1 with respect to the *Hermann* and *Kalman* references.

Both *Hermann* and *Kalman* are silent or deficient to implementing the interconnect network on a system-on-chip (SOC) device.

Godfrey teaches the above motivation at e.g., column 3, lines 30-49.

Thus the examiner proposes to clarify the above rejection that it is well known in the art to implement an interconnect network on a system-on-chip (SOC) device.

Hence the examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to implement a SOC device. In particular, one skilled in the art would have been motivated to use a SOC device as part of a design choice. A further motivation would be to utilize a generic method for interconnecting multiple module types on a single computer chip. As such, *Godfrey* teaches the above motivation at e.g., column 3, lines 47-49.

As to **claim 10**, see similar rejection to claim 2.

As to **claim 11**, see similar rejection to claim 3.

As to **claim 12**, see similar rejection to claim 4.

As to **claim 15**, see similar rejection to claim 7.

5. **Claims 17-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,848,006 B1 to *Hermann* in view of U.S. Patent No. 6,865,149 B1 to *Kalman et al.*

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(“*Kalman*”), U.S. Patent No. 6,111,859 to *Godfrey et al.* (“*Godfrey*”) and U.S. Patent No. 5,390,164 A to *Kremer*.

As to **claim 17**, see similar rejection to claim 9 with respect to the *Hermann*, *Kalman*, and *Godfrey* references.

Hermann, *Kalman*, and *Godfrey* may be silent or deficient to a first interconnection network and a second interconnection network. In particular, the above references teach at least one interconnection network.

Kremer teaches the above limitation in e.g., figure 1.

Thus the examiner proposes to clarify the above rejection that it is well known in the art to have at least two interconnection networks.

Hence the examiner notes that it would have been obvious to one skilled in the art prior to applicant’s invention to use two interconnection networks for transferring data packets between first selected ones of said plurality of processing nodes. In particular, one skilled in the art would have been motivated to have at least to interconnection networks to communicate on two separate networks. As such, *Kremer* teaches the above motivation in e.g., figure 1.

As to **claim 18**, see similar rejection to claim 2.

As to **claim 19**, see similar rejection to claim 2.

As to **claim 20**, see e.g., figure 1 with respect to a shared node. The examiner notes the same motivation as mentioned in the rejection for the base claim.

Allowable Subject Matter

6. **Claims 21-25** are allowed.

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7. **Claims 5, 6, 8, 13, 14, and 16** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571)272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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DWF

Derrick W. Ferris
Examiner
Art Unit 2663


2/2/06
DERRICK FERRIS
PATENT EXAMINER